

Figure 2.7 A Cathode-Ray Tube



Figure 2.8 Deflection of Cathode Rays by an Applied Electric Field

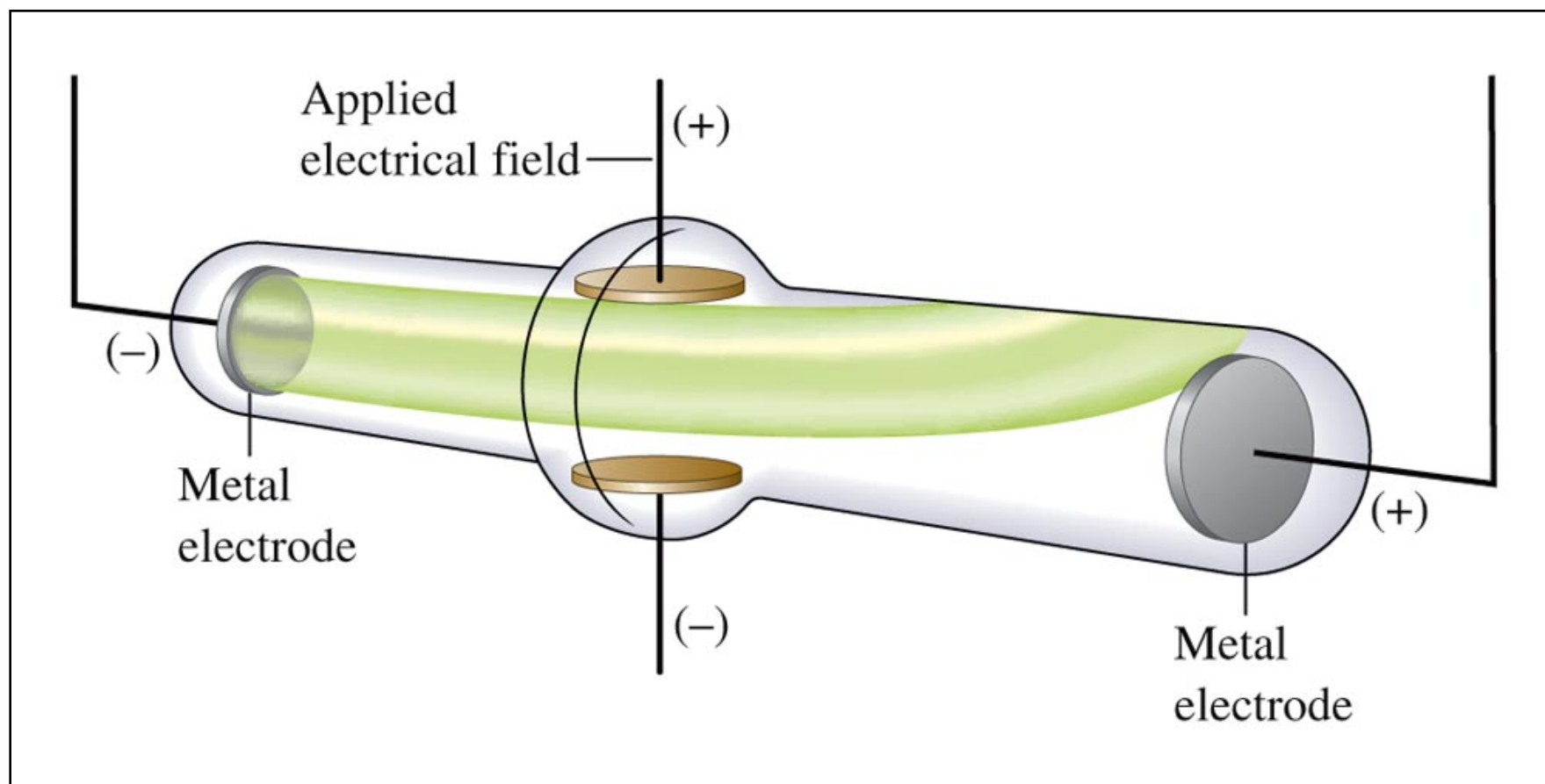


Figure 2.9 The Plum Pudding Model of the Atom

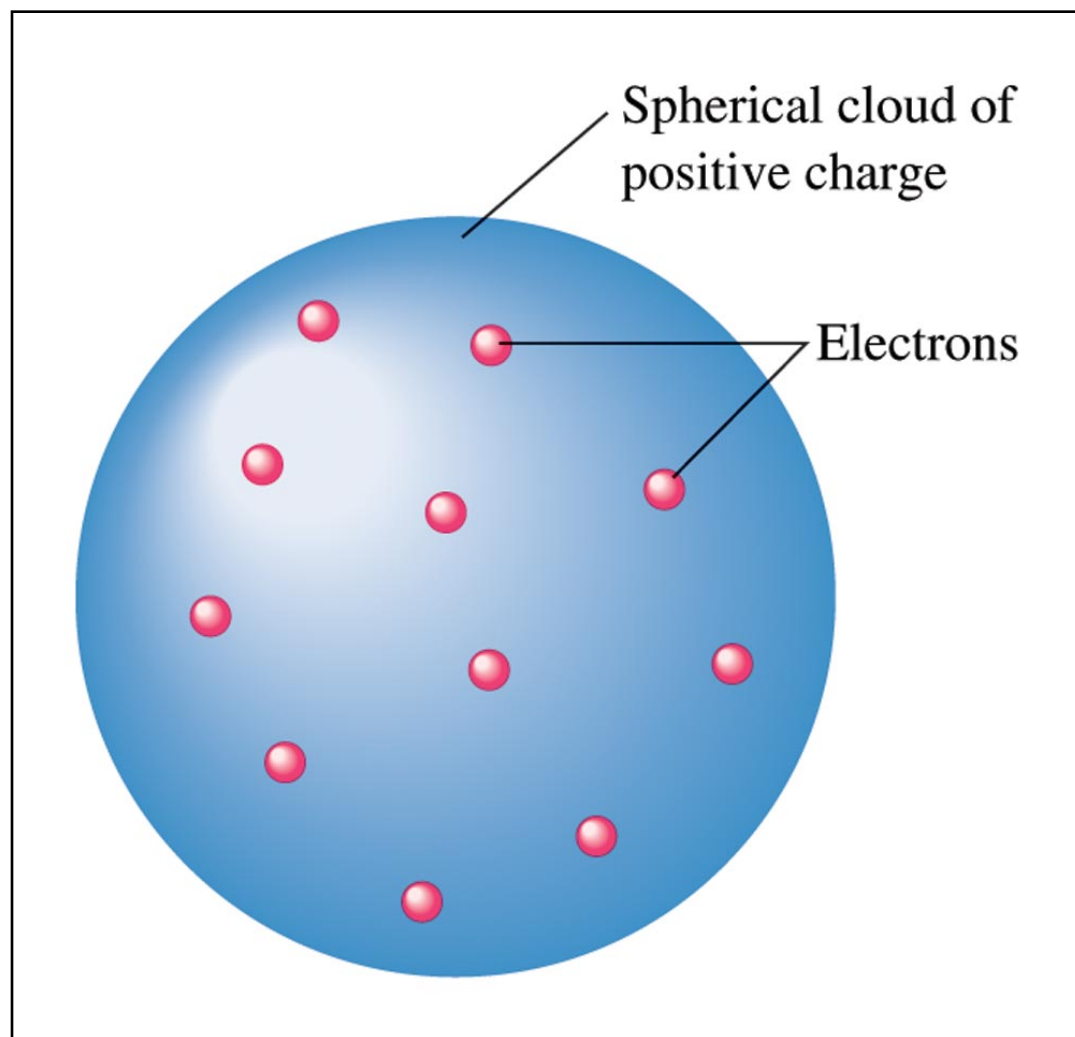


Figure 2.10 A Schematic Representation of the Apparatus Millikan Used to Determine the Charge on the Electron

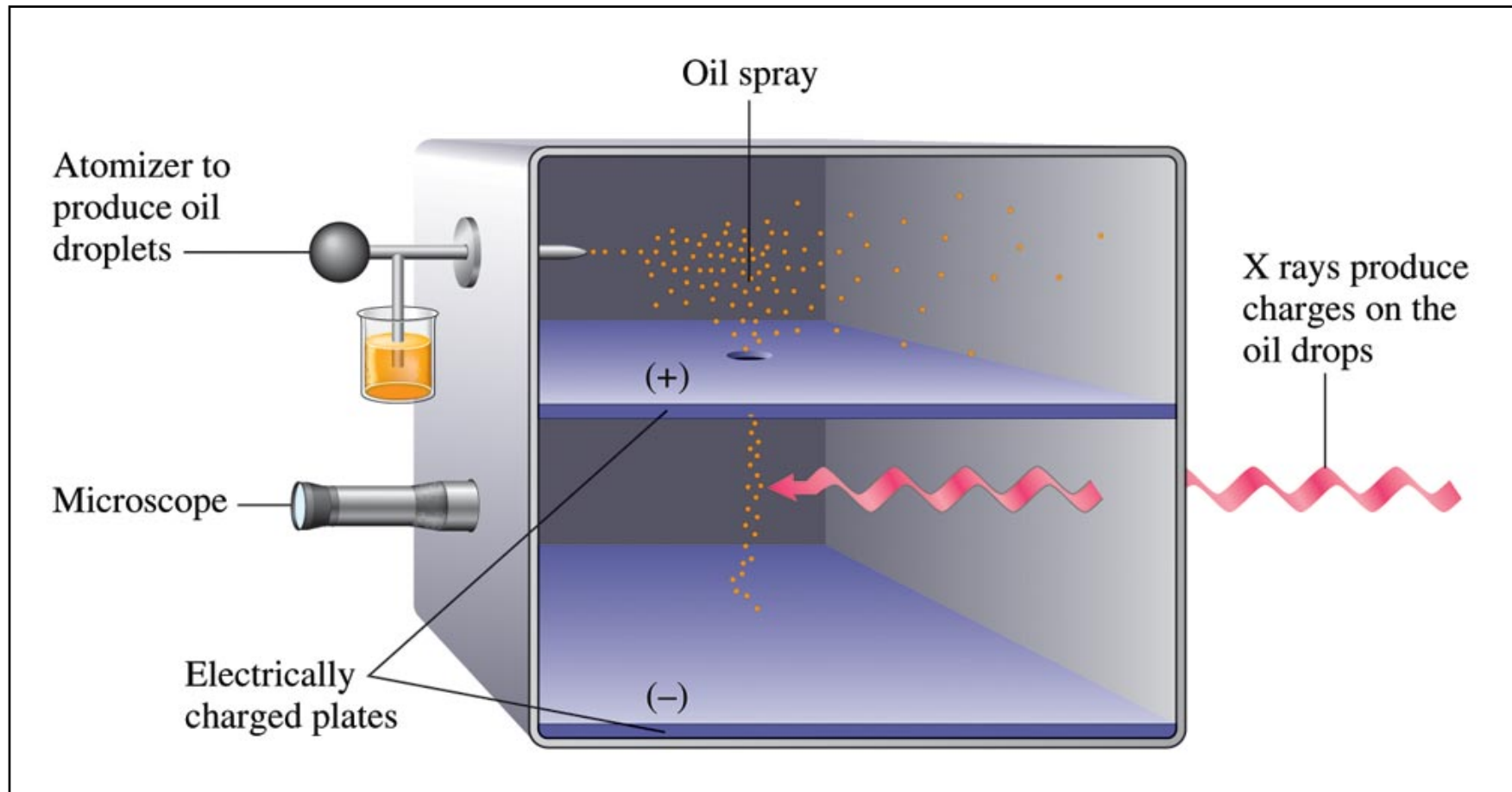


Figure 2.12 Rutherford's Experiment On α -Particle Bombardment of Metal Foil

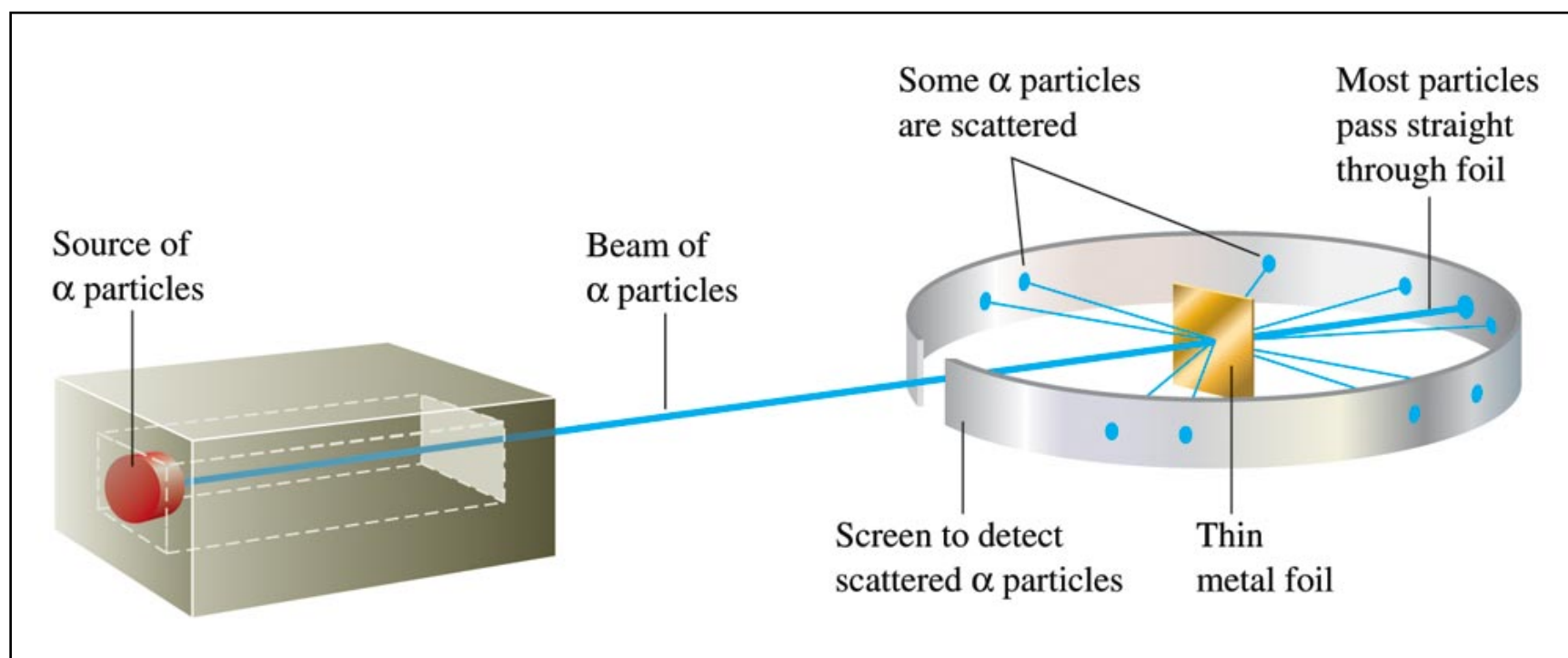


Figure 2.13 a & b
(a) Expected Results of the Metal Foil Experiment if Thomson's Model Were Correct
(b) Actual Results

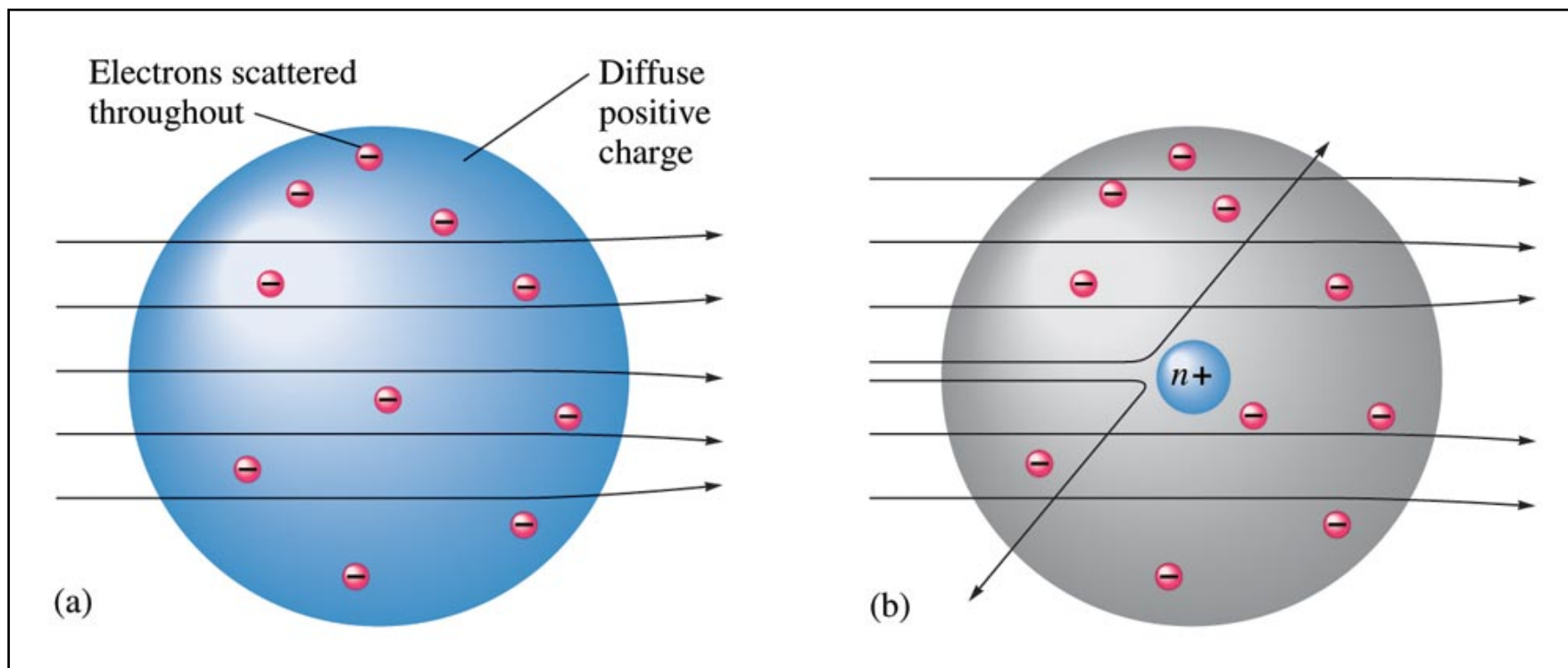
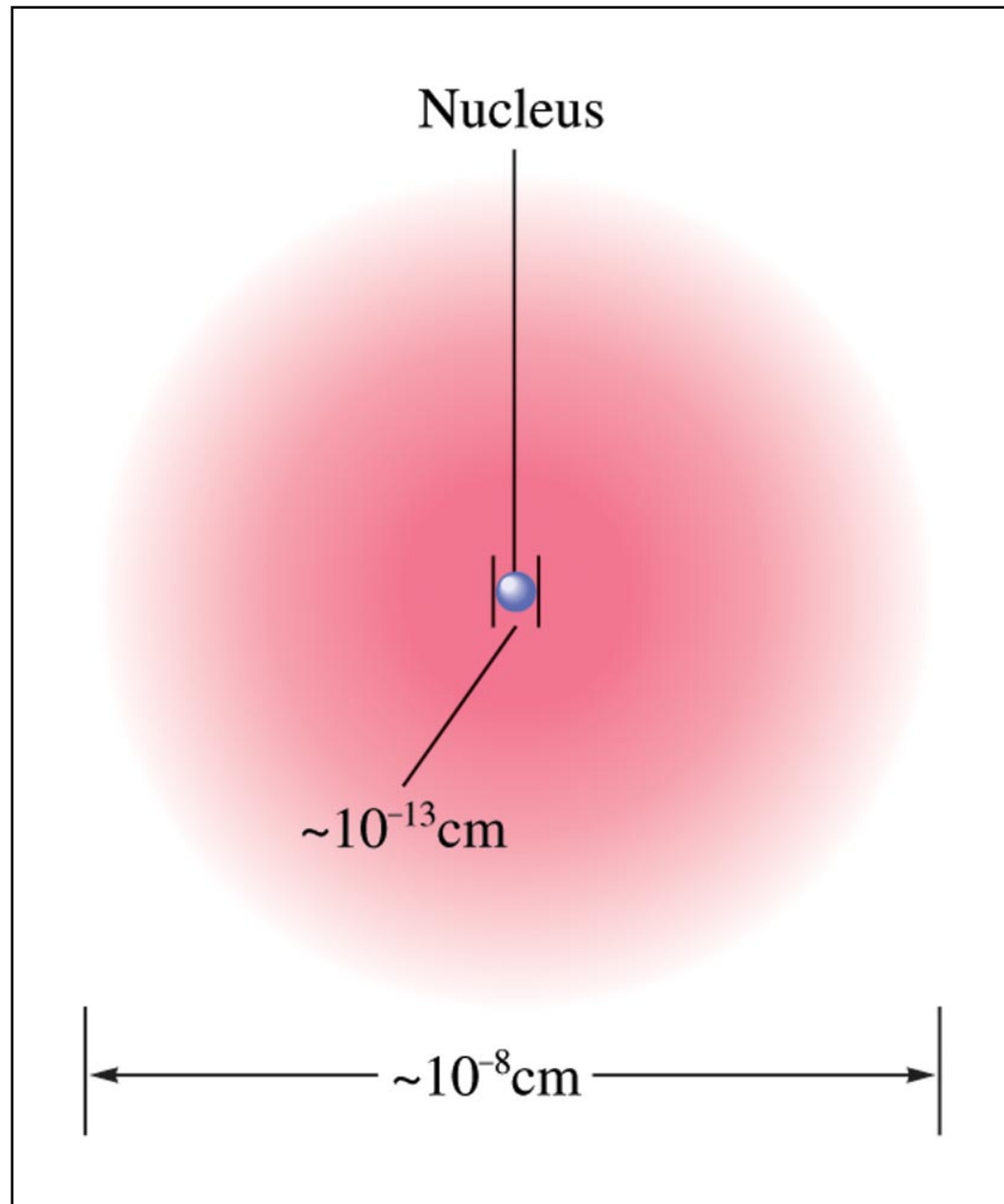


Figure 2.14
Cross
Section of
a Nuclear
Atom



Atomic Nucleus



Table 2.1 The Mass and Charge of the Electron, Proton, and Neutron

TABLE 2.1 The Mass and Charge of the Electron, Proton, and Neutron

Particle	Mass	Charge*
Electron	$9.11 \times 10^{-31} \text{ kg}$	1−
Proton	$1.67 \times 10^{-27} \text{ kg}$	1+
Neutron	$1.67 \times 10^{-27} \text{ kg}$	None

*The magnitude of the charge of the electron and the proton is $1.60 \times 10^{-19} \text{ C}$.

Figure 2.21 The Periodic Table

																		Noble gases ↓ 18 8A		
Alkaline earth metals ↓														Halogens ↓						
1 1A	2 2A													13 3A	14 4A	15 5A	16 6A	17 7A	2 He	
1 H	2 2A													5 B	6 C	7 N	8 O	9 F	10 Ne	
Alkali metals }	3 Li	4 Be													13 Al	14 Si	15 P	16 S	17 Cl	18 Ar
	11 Na	12 Mg	3	4	5	6	7	8	9	10	11	12	Transition metals							
	19 K	20 Ca	21 Sc	22 Ti	23 V	24 Cr	25 Mn	26 Fe	27 Co	28 Ni	29 Cu	30 Zn	31 Ga	32 Ge	33 As	34 Se	35 Br	36 Kr		
	37 Rb	38 Sr	39 Y	40 Zr	41 Nb	42 Mo	43 Tc	44 Ru	45 Rh	46 Pd	47 Ag	48 Cd	49 In	50 Sn	51 Sb	52 Te	53 I	54 Xe		
	55 Cs	56 Ba	57 La*	72 Hf	73 Ta	74 W	75 Re	76 Os	77 Ir	78 Pt	79 Au	80 Hg	81 Tl	82 Pb	83 Bi	84 Po	85 At	86 Rn		
87 Fr	88 Ra	89 Ac†	104 Rf	105 Db	106 Sg	107 Bh	108 Hs	109 Mt	110 Ds	111 Rg	112 Uub	113 Uut	114 Uuq	115 Uup						

Figure 2.23 A Flowchart for Naming Binary Compounds

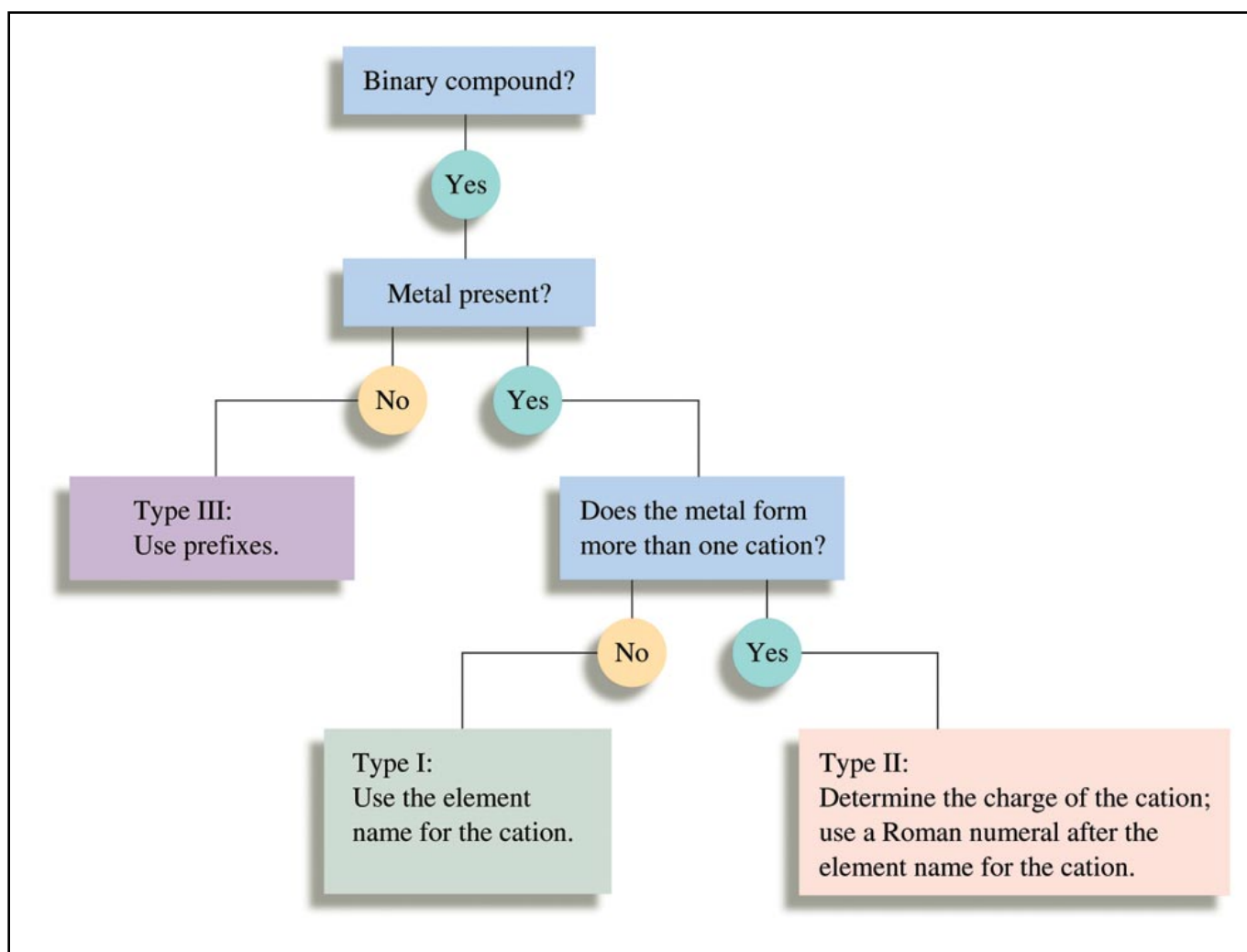


Figure 2.24 Naming Chemical Compounds

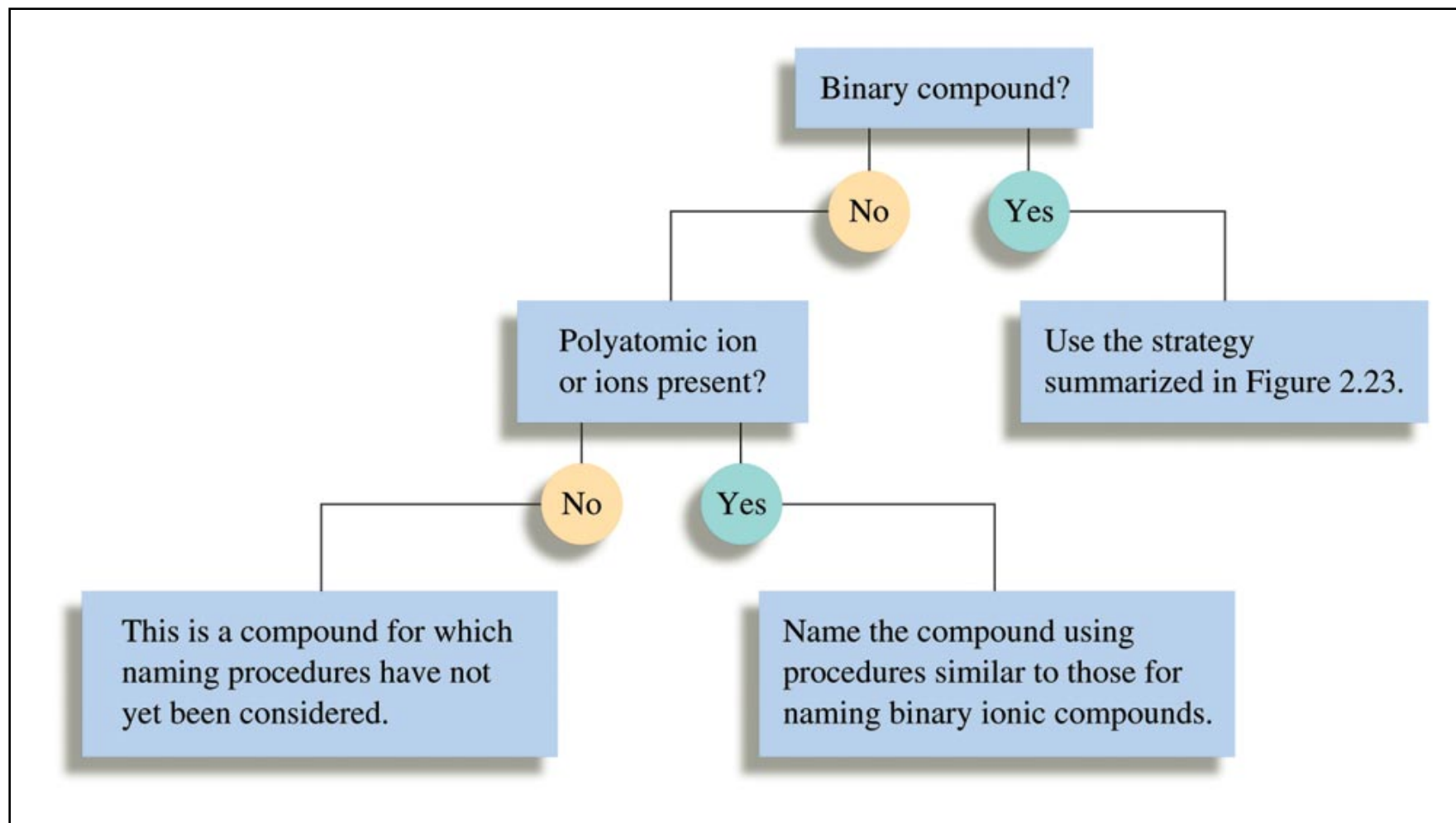


Figure 2.25 Naming Acids

